

## CLAIMS

1 A gaming system wherein a player plays against a casino and/or against  
one or more other player participants and wherein the player is able to effect  
monetary transactions, including placing monetary bets, paying monetary losses  
and collecting monetary wins, according to the rules of a wagering game, the  
gaming system being characterised in that:

access to the game is conditional upon the player employing an electronic player purse incorporated within a player chip-card,

10 said player chip-card also incorporates pre-recorded biometric data characteristic of the player as an individual human,

access to the game is further conditional upon computer-mediated matching of biometric data derived from the player with said pre-recorded biometric data, when the player employs said player chip-card to access the game, and

15 following access to the game, the monetary transactions are effected using  
said player purse.

2 A gaming system according to claim 1 wherein:

20 a player card reader/recorder interface is provided for said player chip-card,  
said player card interface includes means for reading said biometric data  
from the player at the time of intended player access to the game and for  
generating read biometric data therefrom, and

means are provided for matching said read biometric data derived with said pre-recorded biometric data to determine access to the game.

3 A gaming system according to claim 2 wherein:

each player plays the game using a computer-based player station incorporating said player card interface,

30        said player station is capable of reading the amount of monetary value within the electronic purse in a player chip-card in the card interface and is capable of transferring monetary value to or from said player purse upon input by the player to place bets or return wins, following said matching of biometric data,

said player station is computer-based and includes video, audio and/or text receive, display and transmit means, and

said player station is interconnected with other similar player stations via a telecommunications link that includes video, audio and/or data transport means, thereby permitting textual, data, voice and/or video communication between multiple players.

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4 A gaming system according to claim 3 in which the game includes a croupier, the system being characterised in that:

the croupier participates in the game using a computer-based croupier station,

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said croupier station is computer-based and includes video, audio and/or text receive, display and transmit means,

said croupier station is interconnected with each player station via a telecommunications link that includes video, audio and/or data transport means, thereby permitting textual, data, voice and/or video communication between the croupier and each player,

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said croupier station is capable of reading the amount of monetary value transferred by a player from his/her player purse to the respective player station for the purpose of placing a bet and is capable of transferring said monetary value from the player station to the croupier station via said telecommunications link to effect acceptance of a bet, and

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said croupier station is capable of transferring monetary value from the croupier station to the player station via said telecommunications link to effect payment of a win made by the respective player.

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5 A gaming system according to claim 3 or 4 wherein the telecommunications link is an ISDN link, an ASDL link or and IP link.

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6 A gaming system according to claim 4 wherein:

said croupier station incorporates a croupier card reader/recorder interface, participation in a game by the croupier is conditional upon the croupier inserting a croupier chip-card in said croupier card interface,

said croupier chip-card incorporates pre-recorded croupier data characteristic of the croupier as an individual human,

participation in the game by the croupier is further conditional upon computer-mediated matching of said pre-recorded croupier data with data derived from the croupier when the croupier employs said croupier chip-card to access the game.

7 A gaming system according to claim 4 or 6 wherein:  
 said croupier station incorporates a croupier card reader/recorder interface,  
 participation in a game by the croupier is conditional upon the croupier  
 employing an electronic croupier purse incorporated within a croupier chip-card,  
 10 said croupier chip-card also incorporates pre-recorded biometric data  
 characteristic of the croupier as an individual human,  
 participation in the game by the croupier is further conditional upon  
 computer-mediated matching of biometric data derived from the croupier with said  
 pre-recorded biometric data, when the croupier employs said croupier chip-card to  
 15 access the game, and  
 following access to the game, the monetary transactions are effected using said  
 croupier purse.

8 A gaming system according to any one of claims 3 to 7 wherein:  
 20 said data, audio and/or video signals are encrypted and decrypted by each  
 station for transmission via said telecommunications link.

9 Gaming means according to claim 8 wherein:  
 said encryption is effected employing at least one encryption key that is  
 25 electronically stored in each station to enable encrypting of data transmitted by  
 said station and the decrypting of data received by said station, and  
 any unauthorised attempt to access said encryption keys will activate an  
 alarm, leave an audit trail in the respective station, cause system failure or the  
 lock-out of the station concerned.

30 10 A gaming system according to any one of claims 6 to 9 8 wherein one or  
 more of the following security violations are alarmed and/or effect system and/or  
 station shut-down or lockout:

- Any unauthorised substitution or modification of player station hardware or firmware (eg, EPROM or BIOS chips) during or prior to a game,
- Any attempt to access, read or change system files in the remote player station,
- Any unauthorised substitution or modification of croupier station hardware or firmware during or prior to a game,
- Any unauthorised attempt to access read or change system files in the croupier station, including files containing player details and including files and processes relating to the transfer of funds from players' purses.

11 A gaming system according to any one of claims 3 to 10 wherein:  
each player station includes a personal EFTPOS terminal connectable to  
the player's bank for effecting the transfer of monetary value from the player's  
bank account directly into the player's purse, when the player's chip-card is  
activated.

12 A gaming system according to claim 11 wherein:  
transfer of monetary value between the player's bank and the player's card  
is contingent upon identification of the player using biometric means associated  
with the chip-card or the card reader.

13 A gaming system according to any one of claims 4 to 12, wherein:  
a player's identity as a person is not available to the croupier when  
accessing that player's station.

14 A gaming system according to any preceding claim wherein:  
said chip-card includes a fingerprint reader capable of generating read-data  
derived from the finger of a card user when the finger is placed appropriately on  
the card,  
said pre-recorded data comprises fingerprint data,  
access to a game by the player is contingent upon matching of said pre-  
recorded data with said read-data at the time of intended player access to the  
game, and

said matching is performed by a microprocessor incorporated within the chip-card.

15 A gaming system according to any preceding claim wherein said player  
5 chip-card includes encrypted data effective to limit the player's access to a game  
according to the date or time of day of intended access.

16 A gaming system according to any preceding claim wherein the player  
chip-card includes encrypted data effective to limit the maximum monetary value  
10 of a bet and/or the rate at which bets can be placed during the course of a game  
when employing said electronic purse.

17 A method for controlling operative access by a player to a player station for  
the purpose of gaming involving the wagering of money, comprising the steps of:

15 loading a chip-card into a player card reader connected to or incorporated  
within the player station, the chip-card having a monetary value coded therein to  
as to be adapted to serve as an electronic player purse, and the chip-card having  
encoded therein biometric data characterising the player as an individual human,

20 deriving biometric data from the player at the player station and converting  
the derived data into electronic form,

employing processor means within the player station or within the chip card  
to compare said derived biometric data with said encoded biometric data, and  
providing operative access to the player station by the player upon  
correlation or matching of the derived and encoded biometric data.

25 18 A method according to claim 17 including the step of terminating operative  
access by the player to the player station upon withdrawal or removal of the  
player chip-card from the card reader.

30 19 A method according to claim 17 or 18 including the steps of:

employing said processor means to read control data stored in a control  
register within the chip-card, and

employing said processor means to limit the functionality of the player  
station in accordance with said control data.

20 A method according to claim 19 including the step of limiting the amount of monetary value that can be transferred from the player purse to the player station for the purpose of placing a bet in accordance with said control data.

5 21 A method according to claim 20 or 21 including the step of denying player access to the player station during particular times in accordance with said control data.

10 22 A method of gaming involving monetary betting by a plurality of players operating respective computer-based player stations that are connected to one another by a telecommunications network, the method involving the steps of:

denying each player operative access to a respective player station unless a chip-card is inserted by the player into a player card reader in said station and  
15 unless biometric data pre-recorded on said card is matched with corresponding biometric data derived from the player at the station, the chip-card having a monetary value coded therein to as to be adapted to serve as an electronic player purse,

electronically transferring monetary value from said player purse to an  
20 electronic holding register in the player station such that the monetary value corresponds to the amount of a bet signified by player input at the station,

electronically transferring the monetary value corresponding to said bet from said holding register in a first player station to a second player station in the event that the bet at the first player is lost and the bet at the second station is  
25 won,

electronically transferring any residual monetary value from said holding register to said purse upon termination of the game.

23 A method according to claim 22 including the step of terminating operative  
30 access by a player to the respective player station upon withdrawal or removal of the player chip-card from the card reader.

24 A method according to claim 23 or 24 including the steps of:

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employing a processor within the player card or within the player station to read control data stored in a control register within the player card inserted within the card reader, and

employing said processor means, in accordance with said control data, to limit the maximum monetary value that a player can transfer from the player card to the player station in order to place a bet.

25 A method according to any one of claims 22 to 24 involving a croupier operating a computer-based croupier station that is connected to each player station by said telecommunications network, wherein transfer of monetary value to and from the holding register in each player station is effected by the croupier.

26 A method according to claim 25 including the steps of:  
denying the croupier operative access to the croupier station unless a chip-card is inserted by the croupier into a croupier card reader in said croupier station and unless biometric data pre-recorded on said croupier card is matched with corresponding biometric data derived from the croupier at the croupier station, the chip-card having a monetary value coded therein to as to be adapted to serve as an electronic croupier purse,

20 transferring monetary values in player station holding registers corresponding to player losses to the croupier purse, and

transferring monetary values from the croupier purse to the player station holding registers corresponding to player wins,

25 said transfers to and from the croupier purse being under the exclusive control of the croupier.

27 A computer-based station for use by a player or a croupier in gaming where monetary bets are involved, comprising:

30 means adapted to connect the station to a telecommunications or computer network,

output means adapted to display and/or sound information derived from said network,

input means adapted to accept input commands for the purpose of signifying bets and plays,

a device for reading a biometric characteristic of a person intending to use  
5 the player station and for generating read data, and

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a microprocessor,  
a first data register adapted to serve as an electronic purse for storing monetary value,

a second data register adapted to serve as a store for control data, and program storage means effective under the control of said microprocessor to limit use of said electronic purse in accordance with said control data.



29. A gaming system for both live and electronic forms of gambling played both in a live and remote environment enabling a player to:

transfer funds received directly from a bank account (credit, debit, cash) into a  
5 chipcard and transfer to one or more casinos during the course of a game;

transfer funds from one currency to another at the beginning, during and at the completion of a gambling session;

transfer funds to and from a separate account held by one or more casinos on behalf of the cardholder and the amount in the account is not accessible by the casino but only the  
10 player;

hold funds electronically on the chipcard for use at either a physical or virtual gaming venue using a purse system.

wherein players are able to participate anonymously by use of PIN or biometric means or other electronic identification of the cardholder.

15 30. A gaming system in accordance with claim 29 wherein players present at a casino or gaming venue and players remotely located are connected via a high-speed audio / video connection to provide real-time participation in the same game.

31. A gaming system in accordance with claim 30 wherein the system uses high-speed ADSL networks which link to private banking systems, eg. HKSB Hexagon system.

20 32. A gaming system in accordance with claim 29 including ongoing security features which identify the cardholder throughout the gaming session, wherein these features include one or more of:

continuous voice recognition

retina scanning

25 digital image facial compaction

33 A gaming system in accordance with claim 30 including a series of pop-up screens which indicate the cardholder's bets, current position and cards held.

34. A gaming system in accordance with claim 30 wherein a dealer at the casino has a series of pop-up screens or windows which indicates each player's bets and holdings and  
30 instructions given by players participating remotely and can be confirmed electronically to the player who has the option of re-confirming the instructions electronically.